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ABSTRACT

Changes in the direction and magnitude of adult black suicide rates in large metropolitan centers of the United States are examined in this paper. The data presented are primarily from Standard Metropolitan Statistical Areas (SMSAs) with 100,000 or more black residents and indicate that (1) the gap between the suicide rates of black males and females has been widening in every region of the country except the West; (2) rates are rising most dramatically in the metropolitan Northeast, and declining most notably in SMSAs of the North Central United States; (3) rates continue to be highest among large industrial centers of the North and West; and (4) rates declined among metropolitan black females in every region of the country and among black males in the West and North Central regions, although they increased for males in the South and Northeast. Finally, it is argued that suicide is best explained by institutional and sociological variables, that is, that the problem of suicide is rooted less in individual behavior than in the character of social institutions, social patterns, and social networks. (Author/GC)

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Institute for Research on Poverty

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ABSTRACT

This analysis provides a comprehensive examination of changes in the direction and magnitude of adult Black suicide rates in large metropolitan centers. Attention is focused primarily upon SMSAs with 100,000 or more Black residents. The central task of this analysis is to make metropolitan Black suicide statistics readily accessible to mental health practitioners and students of suicide, and to delineate some of the most obvious errors in census and vital statistics data for Blacks and the effect of these errors on the analysis of suicide trends.

In general the data indicate that 1) the gap between the suicide rates of males and females has been widening in every region of the country except the West; 2) rates are rising most dramatically in the metropolitan Northeast, whereas the sharpest declines occur among SMSAs in the North Central United States; 3) rates continue to be highest among large industrial centers of the North and West; and 4) rates declined among metropolitan Black females in every region of the country, and among Black males in the West and North Central regions, although increasing for males in the South and Northeast.

Finally, a perspective arguing that the phenomenon of suicide is best explained by institutional and sociological variables--that the problem of suicide is rooted less in individual behavior than in the character of institutions and social patterns, and networks that derive from them--is presented.

Metropolitan Black Suicide: Recent Trends and Methodological Issues

INTRODUCTION

All of the statistical patterns associated with suicide among Blacks suggest that more Black suicides are committed in large Northern and Western urban centers than in other parts of the country. Metropolitan areas have always been regarded as being "higher risk" than rural or nonmetropolitan areas. Although there has been a trend since the last decade toward higher suicide rates in nonmetropolitan areas (Linden and Breed, 1976), suicides in general and Black suicide in particular are still most frequent in large urban areas. Indeed, this phenomenon has been used to explain the low suicide rates of Blacks in the South (Grier and Cobbs, 1969).

Most of the studies of levels and trends in suicide rates for various subdivisions of metropolitan populations (Schmid, 1938; Cavan, 1928; Maris, 1969; Breed, 1963, 1970; Davis and Short, 1978) have focused mainly upon one metropolitan area. In addition, until recently detailed analysis of the Black population was rare in this literature; interest in the phenomenon of Black suicide was dominated by the psychological community. The main function of this paper is to make metropolitan Black suicide statistics readily accessible to mental health practitioners and students of suicide interested in examining changes in the magnitude and direction of suicide rates among metropolitan Blacks, and to delineate some of the most obvious errors in census and vital statistics data for Blacks and assess the effect of these errors on the analysis of suicide trends.

The principal data utilized in this analysis are classified by Standard Metropolitan Statistical Areas (SMSAs),* which highlight the degree to which Blacks are concentrated in the most populous urban areas, especially in the North and West.[1] The focus is on the largest metropolitan centers, primarily those with a Black population of 100,000 or more.[2] In the South, where the Black population is the most dispersed, fifteen of the twenty-six centers contain Black populations of over 100,000 representing 72% of the Black metropolitan population of the South. Ten of the eleven North Central metropolitan centers and six of the seven Northeastern centers have Black populations of 100,000 or more, accounting for 86% and 87% respectively of the Black metropolitan populations of each region. In the West, where the Black population is the least dispersed, only Los Angeles and San Francisco are included;[3] however, these two metropolitan centers alone contain 70% of all metropolitan Blacks in the Western region. Sixty-five percent of the entire non-Southern metropolitan Black population resides in Los Angeles New York City, Chicago, Philadelphia, San Francisco, Detroit, St. Louis, Cleveland, and Newark.[4] Although the South has a greater dispersion of the Black population over a larger number of metropolitan areas, it is similar to the non-South in that close to two-thirds of all metropolitan Blacks live in those few metropolitan centers with 100,000 or more Blacks.

For a comprehensive examination of the characteristics and trends of adult Black suicide rates in approximately fifty metropolitan centers recent mortality data are used in conjunction with population bases from current census estimates.

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*An SMSA, or Standard Metropolitan Statistical Area, consists of a county or group of counties that have a city or twin city with a population of 50,000 or more, and that are metropolitan in character and economically and socially integrated with the central city.

Rates for both years are based on detailed mortality data tapes supplied by the National Center for Health Statistics (NCHS). In the detail file there is one tape record fo. each death that occurred in the selected years. Demographic and mortality information includes classification by place of occurrence and residence, age, race, sex, and underlying cause of death. Variations in the magnitude and direction of change in the suicide rates of adult Blacks (18 years and older) residing in SMSAs between 1970 and 1975 are taken as representative of trends.

PROBLEMS IN CALCULATING SUICIDE RATES

Demographers frequently compute rates for the Black population using "nonwhite" statistics, and then note that these rates accurately reflect Black trends.[5] Although Blacks constitute 90-94% of nonwhites in the nation, the nonwhite category can be misleading when analyzing mortality data. Black mortality levels (i.e., suicide) are generally higher than for Asians and Orientals, who along with Native American and Hispanics form the nonwhite category. Researchers using such data need to be aware of this trend toward obscuring differential in patterns of suicide among the various minorities comprising the nonwhite category.

Annual suicide rates may be calculated for a given age, sex, race, group, or geographical area according to the following formula:

$$r_i = \frac{S_i}{P_i} K,$$

where

r_i = suicide rate for any defined ith class - usually for a calendar year

S_i = registered deaths due to suicide in the ith class - usually for a calendar year

P_i = population exposed to the risk of death in the ith class

K = a constant, usually 100,000.

In assessing the reliability of suicide rates both the numerator (S_i) and the denominator (P_i) must be considered in any comparative analysis between categories over time. Problems of the numerator involve completeness of death registration and the accuracy of sex, race, and age statements on death certificates. With regard to the denominator completeness and accuracy of census enumerations may be problems. Where the numerator is small, as it is for Black females, relatively greater changes in the rates can occur due to random fluctuations of a comparatively rare event. When the denominator is small, as it is for the oldest ages, minor errors of underenumeration or age misstatement can produce large differences in suicide rates.

Possibly the most common problem encountered in calculating accurate suicide rates is that of underregistration or undercount. Each census misses some people who should be enumerated, and every vital statistics system fails to register all deaths from suicide. For a long time demographers have been aware of a census undercount of the Black population, especially of young Black males in large metropolitan areas. Although various tests of census accuracy suggest an improvement in the overall enumeration of Blacks since earlier censuses (Siegel, 1974), most census data continue to underenumerate Blacks to a greater extent than whites.

Population estimates for the present analysis of metropolitan Black suicide rates were taken from the 1970 County Group Public Use Sample and the 1976 Survey of Income and Education. Farley (1968) has noted that rates computed from published census data such as these tend to overestimate both the birth and the death rates of Blacks by 1 or 2 points. Since attention here

is observed patterns of variation rather than minor differentials in rates, corrected estimates were not employed. It is usually more fruitful to adjust for underenumeration when comparing categories of rates that are fairly similar in magnitude, since this is where minor differences are subject to lead to erroneous impressions about trends in Black suicide rates.

Some problems inherent in the use of suicide statistics are the by-product of legal requirements that all deaths be registered. The registration process involves the legal certification by a medical-legal officer (such as a physician, coroner, or medical examiner) that death did occur to the described individual (U.S. Department of Health, Education and Welfare, 1978). Consequently the number of suicides for specific sex/age or other groups in any given year can be affected by differential methods of investigating violent deaths, the training of the investigator, and the degree of certainty he/she requires before diagnosing suicide. Errors of certification that are not uniformly distributed among the social and demographic categories being considered tend to cause minor distortions in the accuracy of calculated rates.

OVERALL TRENDS FOR 1970 and 1975

Within the present decade, the North Central region of the country has firmly established itself as a leading center of Black suicide, as shown in Table 1. Of particular note is Cincinnati, which moved from 18th in 1970 to a leader in 1975, and Cleveland, which appears among the top ten SMSAs during both periods. Three other SMSAs within the North Central region are worthy of attention in that Columbus and Gary, which had been third and fourth, respectively, in 1970, dropped to thirty-first and twenty-seventh in 1975, and Detroit, thirteenth in 1970, had moved to third by 1975.

Table 1

Trends in Suicide Among Blacks in Metropolitan Areas,[a] Rates per 100,000

Black Population by Sex and Region, 1970 and 1975

Rank 1970	Rank 1975	SMSA	1970 Both Sexes	1970 Males	1970 Females	1970 Ratio	1975 Both Sexes	1975 Males	1975 Females	1975 Ratio	Change from 1970 to 1975 (in percentages) Both Sexes	Males	Females
		SOUTH	8.7	14.2	4.3	3.3	8.9	15.0	3.8	3.9	2.3%	5.6%	-11.6%
15	11	Baltimore MD	10.9	17.7	5.2	3.4	11.9	23.3	2.4	9.7	9.2	31.6	-53.9
23	9	Washington D.C. MD-VA	8.0	13.8	3.0	4.6	13.2	25.3	2.8	9.0	65.0	83.3	- 6.7
9	17	Richmond VA	14.0	17.1	11.5	1.5	10.4	8.0	12.7	0.6	-25.7	-53.2	10.4
37	35	Norfolk-Portsmouth VA	* 3.1	* 4.3	* 2.0	2.2	5.3	9.4	* 1.6	5.9	71.0	118.6	-20.0
27	38	Greensboro-Winston-Salem High Point NC	7.0	15.8	0.0	15.8	4.6	*6.6	*3.2	2.1	-34.3	-58.2	320.0[b]
26	37	*Charlotte NC	7.3	8.0	6.8	1.2	4.9	7.3	2.9	0.9	-86.5	- 8.8	- 57.4
34	18	*Columbia SC	4.1	8.3	0.0	8.3	9.5	18.3	2.8	6.5	131.7	120.5	280.0[b]
32	41	*Augusta GA	4.8	5.0	4.6	1.1	1.2	2.0	0.5	4.0	-75.0	-60.0	- 89.1
23	21	Charleston SC	* 8.0	* 4.4	*11.0	0.4	8.5	17.3	0.0	17.3	6.3	293.2	-100.0
22	32	Jacksonville FL	8.6	*10.1	* 7.5	1.3	6.2	11.1	* 1.5	7.4	-27.9	9.9	- 80.0
19	12	*Ft. Lauderdale-Hollywood FL	* 9.8	*16.0	* 4.6	3.5	11.6	23.9	0.0	23.9	18.4	49.4	-100.0
17	29	Miami FL	10.3	14.8	* 6.7	2.2	6.7	9.3	* 4.1	2.3	-35.0	-37.2	- 38.8
10	8	Tampa-St. Petersburg FL	13.4	22.1	* 6.1	3.6	14.4	*22.0	* 8.5	2.6	7.5	- 0.5	39.3
9	14	Atlanta GA	14.0	24.6	5.8	4.2	10.9	15.8	6.9	2.3	-22.1	-35.8	19.0
22	15	Birmingham AL	8.6	12.8	* 5.5	2.3	10.8	21.5	* 2.7	8.0	25.6	68.0	- 50.9
25	28	Memphis TN-AR	7.6	11.8	* 4.5	2.0	6.9	12.3	2.0	6.2	- 9.2	4.2	0.0
11	2	Nashville-Davidson TN	13.2	25.0	* 3.1	8.1	21.9	37.4	*10.2	3.7	65.9	49.6	229.0
6	6	Louisville KY-IN	15.5	32.2	* 3.0	10.7	14.8	19.6	*10.8	1.8	- 4.5	-39.1	260.0
26	30	Dallas TX	7.3	9.6	* 5.3	1.8	6.5	12.5	* 1.0	12.5	-11.0	3.0	-81.0

Table 1--continued

Rank 1970	Rank 1975	SMSA	1970 Both Sexes	1970 Males	1970 Females	1970 Ratio	1975 Both Sexes	1975 Males	1975 Females	1975 Ratio	Change from 1970 to 1975 (in percentages) Both Sexes	Males	Females
20	26	*Ft. Worth TX	8.9	20.0	0.0	20.0	7.4	18.2	0.0	18.2	- 1.7%	- 9.0 %	0.0%
35	16	*Shreveport LA	3.7	4.3	3.3	1.3	10.7	*11.8	* 9.5	1.2	189.0	174.0	188.0
30	34	*Jackson MS	6.1	8.8	3.8	2.3	5.6	7.7	3.9	2.0	- 8.2	-12.5	2.6
36	40	*Mobile AL	3.6	3.7	3.6	1.0	2.7	4.4	1.2	3.7	-25.0	18.9	- 66.7
·7	36	Baton Rouge LA	14.7	28.2	* 3.8	7.4	* 5.2	*10.1	0.0	10.1	-64.6	-64.2	-100.0
24	13	New Orleans LA	7.8	16.7	* 1.0	16.7	11.5	21.5	* 3.0	7.2	47.0	29.0	200.0
28	22	Houston TX	6.8	10.8	* 3.4	3.2	8.2	13.4	3.7	3.6	21.0	24.1	8.8
		NORTH CENTRAL	12.1	18.5	6.4	3.0	10.1	17.4	4.5	3.9	-16.5	- 5.9	- 30.0
13	33	Indianapolis IN	11.6	17.1	* 7.0	2.4	5.9	*10.1	* 2.2	4.6	-49.1	-40.9	- 68.6
18	1	Cincinnati OH	9.9	15.1	* 5.8	2.6	22.2	38.0	10.9	3.5	124.2	151.7	87.9
16	23	Dayton OH	10.8	*12.0	* 9.9	1.2	8.1	16.7	0.0	16.7	-25.0	39.2	-100.0
·3	31	Columbus OH	18.4	31.5	* 3.9	8.1	6.3	* 8.6	* 4.5	1.9	-65.8	-72.7	15.8
·5	6	Cleveland OH	16.0	25.6	8.4	3.1	14.8	24.3	6.1	4.0	- 7.5	- 5.3	- 27.4
13	3	Detroit MI	11.6	18.3	5.8	3.2	16.8	29.6	7.2	4.1	44.8	61.8	24.1
21	21	Chicago IL	8.8	15.2	3.6	4.2	8.5	15.0	3.6	4.2	- 3.4	- 1.3	- 14.3
·4	27	Gary IN	16.2	27.4	* 6.2	4.4	* 7.3	*12.7	* 3.2	4.0	-54.9	-53.7	- 48.4
14	17	Milwaukee WI	11.1	*11.6	*10.6	1.1	9.6	17.1	* 2.6	6.6	-13.5	47.4	- 75.5
12	24	Kansas City MO-KS	12.6	18.0	* 8.3	2.2	7.7	11.6	* 4.0	2.9	-38.9	-35.6	- 51.8
20	39	St. Louis MO-IL	6.1	12.0	* 1.7	7.1	4.2	7.4	* 1.4	5.3	-31.2	-38.3	- 17.7
		NORTHEAST	9.0	18.9	3.8	5.0	13.0	26.1	3.6	7.3	44.4	38.1	- 5.3
29	20	Boston MA	6.3	*11.7	* 2.2	5.3	9.0	17.4	2.3	7.6	42.9	48.7	4.6
33	4	Buffalo NY	* 4.7	* 6.7	* 3.0	2.2	15.5	31.9	* 5.1	6.3	229.8	376.1	70.0
31	25	New York NY	5.2	9.8	1.7	5.8	7.5	13.4	3.3	4.1	44.2	36.7	94.1
·1	10	Pittsburgh PA	21.5	41.3	* 5.3	7.8	12.9	29.3	* 1.5	19.5	-40.0	-29.1	- 71.7

Table 1—continued

Rank 1970	Rank 1975	SMSA	1970 Both Sexes	1970 Males	1970 Females	1970 Ratio	1975 Both Sexes	1975 Males	1975 Females	1975 Ratio	Change from 1970 to 1975 (in percentages) Both Sexes	Males	Females
23	19	Newark NJ	8.0	11.3	5.4	2.1	9.4	17.8	3.5	5.1	17.5%	57.5%	- 35.2%
25	20	*Paterson-Clifton-Passaic NJ	7.6	17.3	0.0	17.3	9.0	20.1	0.0	20.1	18.4	16.0	0.0
19	7	Philadelphia PA	9.8	13.3	5.4	2.8	14.5	26.4	6.1	4.3	48.0	73.0	13.0
		WEST	17.5	23.8	12.5	1.9	15.2	20.7	9.8	2.1	-13.0	-13.0	- 22.0
2	4	Los Angeles-Long Beach CA	21.4	25.3	18.3	1.4	15.5	21.5	9.8	2.2	-28.0	-15.0	- 46.0
8	5	San Francisco-Oakland CA	14.1	22.3	6.7	2.2	14.9	19.8	9.8	2.0	6.0	-11.0	13.0

Source: Computations by author from 1970 and 1975 Mortality Tapes, 1970 County Group Public Use Sample, and 1976 Survey of Income and Education.

* Rates based on less than 5 cases of suicide.

a Only SMSAs with 40,000 or more adult Blacks in 1970 and 1975 and enough cases of suicide to allow the calculation of stable rates; rates reflect suicide among adult Blacks 18 and above.

b These increases are statistical artifacts resulting from the fact that no Black female suicides occurred in these SMSAs in 1970.

In the West, the Los Angeles and San Francisco SMSAs have been consistent frontrunners. Los Angeles declined slightly in rank from second in 1970 to fourth in 1975, and San Francisco increased in rank from eighth in 1970 to fifth in 1975. Elsewhere, Louisville remained constant at sixth, and five others--Washington, Tampa, Nashville, Buffalo, and Philadelphia--increased in rank to the top ten (only six of the top ten in 1970 are also in the top ten in 1975) with Buffalo rising from thirty-third to fourth. Pittsburgh, the leading center of Black suicide in 1970, declined in rank to tenth by 1975; Richmond and Atlanta, both ninth in 1970, moved to seventeenth and fourteenth by 1975; and Baton Rouge seventh in 1970 fell to thirty-sixth by 1975.

The South recorded the lowest Black suicide rates in both years. Mobile, the SMSA with the lowest rate in 1970 at 3.6 per 100,000, recorded an even lower rate in 1975, with 2.7. Besides Mobile, Augusta, Jackson, Norfolk, and Greensboro appear in the bottom ten in both 1970 and 1975. Baton Rouge experienced the sharpest decline in rank, moving from the top ten in 1970, to well within the bottom ten by 1975. Houston, in the bottom ten in 1970, increased its rank slightly from twenty-eight to twenty-second, and Charlotte and Dallas, both ranked twenty-sixth in 1970, declined to thirty-seventh and thirtieth by 1975.

Of the bottom ten SMSAs in 1970, only New York, Buffalo, and Boston were not located in the South. In 1975, St. Louis and Indianapolis were the only non-South SMSAs in the bottom ten, although both are located in the traditionally high risk North Central region. St. Louis, for example, was ranked twenty-ninth and thirty-ninth in 1970 and in 1975, recording rates of 6 and 4, per 100,000, respectively. These rates are characteristic of those found among Southern SMSAs, as are the rates for Chicago, which display a striking consistency (approximately 9 per 100,000) over the six years. Clearly both SMSAs display

atypical rates for their region.

In terms of consistency in rank, only fourteen of the forty-six SMSAs maintained ranks in 1975 within four $\pm$ positions of their 1970 rank. Louisville and Chicago remained constant, with Cleveland, Charleston, Tampa, Norfolk, and Los Angeles experiencing slight changes, followed by Memphis, Milwaukee, San Francisco, Baltimore, Dallas, Jackson, and Mobile.

The summary statistics presented in Table 2 show that overall, there is a striking consistency in the number of SMSAs with high, moderate, and low rates for the total adult Black population. Regionally, however, the number of Southern SMSAs with low rates decreased by 12%. The trend is for Southern SMSAs to shift from the low rate category to moderate rates. The number of SMSAs in the latter category increased by 25%, with no change occurring in the high rate category. The observed trend for non-South SMSAs (N = 20) is exactly the opposite. The number of SMSAs in the moderate rate category decreased by one-third; whereas the low rate category increased by slightly more than one-fifth. The number of non-South SMSAs in the high rate category remained constant over the period, as it did in the South.

COMPARISON OF BLACK MALE/FEMALE TRENDS

Analysis of rates by sex for the period 1970 to 1975 reveals that the SMSAs reporting the highest rates for Black males at the beginning of the decade--Pittsburgh (41.3) and Columbus (31.5) (see Table 1) were not leading centers of Black male suicide by the middle of the decade. Indeed, significant decreases in both metropolitan areas' male rates (73% and 29%) were recorded. By 1975, Cincinnati, Nashville, and Buffalo, with rates of 38, 37, and 32 per 100,000 Black males, emerged as frontrunners. In Cincinnati, Black male suicide increased

Table 2

Summary of Rate Changes for Black Suicide

in Metropolitan Areas, 1970, 1975

Suicide Rate Per 100,00	N = Number of SMSAs in Each Category														
	Both Sexes		%	Males		%	Females		%	South		%	Non-South		%
	1970	1975	Change	1970	1975	Change	1970	1975	Change	1970	1975	Change	1970	1975	Change
Low															
(< 10)	27	27	0.0	11	6	-45.5	42	42	0.0	17	15	-11.8	9	11	22.2
Moderate (10-15)	14	14	0.0	11	10	-9.1	3	4	33.3	8	10	25.0	6	4	-33.3
High (> 15)	5	5	0.0	24	30	25.0	1	0	-100	1	1	0.0	5	5	0.0

by more than 150%; Buffalo recorded the most dramatic increase, 376%; Nashville's rate increased by a modest 50%. The lowest Black male rates occur in the same SMSAs recording the lowest total rates (as expected): in 1970, Shreveport Norfolk, and Charleston, with a rate of 4.4, and Mobile, with the lowest total rate of 3.7; in 1975, Augusta (2 per 100,000) joined Mobile (4.4 per 1000,000) in recording the lowest rates, with Augusta experiencing a 60% decrease in its Black male suicide rate between 1970 and 1975.

Scanning the data for males in Table 2, the shift in the distribution of SMSAs toward higher rates between 1970 and 1975 becomes apparent. In fact, the number of SMSAs recording high rates for Black males increased by 25%. In 1970, slightly more than half of the urban areas recorded rates of 15 per 100,000 or greater; however, by 1975 the proportion had increased to 65%. Decreases of 46% and 9% were experienced among urban areas with low and moderate rates.

Richmond, Virginia emerges as a consistent high risk area for Black females (see Table 1) with rates of 11.5 (1970) and 12.7 (1975) showing an increase of 10%. The Los Angeles urban area recorded the highest 1970 Black female rate of this investigation 18.3 per 100,000; by 1975, however, the rate had decreased 46% to a little under 10. Charleston, the SMSA with the third highest female rate in 1970, recorded no suicide among Black females in 1975. Cincinnati, Louisville and Nashville, together with Richmond are the SMSAs with the highest Black female rates in 1975. Earlier, we saw that the highest Black suicide rates for both the total and male populations were found in Cincinnati; it is no surprise, then, to find the second highest female rate in Cincinnati by 1975, an increase of 88% over the six years. The Nashville and Louisville SMSAs recorded more dramatic increases in their rates, but the actual number of suicides is relatively small at both points in time.

There were no suicides among Black females in four of the SMSAs in 1970 (Paterson, Columbia, Ft. Worth, and Greensboro), and three others (New Orleans, New York, and St. Louis) had extremely low rates. In 1975 the number of SMSAs with no Black female suicides increased to six, with Ft. Worth and Paterson continuing to be at the bottom of the list, along with Charleston, Ft. Lauderdale, Baton Rouge, and Dayton. Although the Charleston SMSA had the third higest rate for Black females in 1970, the actual numbers involved are relatively small, as is the case with Ft. Lauderdale, Baton Rouge and Dayton. Indeed, the reduction of their rates to zero merely reflects the fact that from 1970 to 1975 the actual incidence of suicide decreased by two or three cases. Hence, Black females in these urban areas may be characterized as a low suicide-prone group. But what is more, of the forty-six SMSAs in 1975, thirteen had female rates of less than 2 per 100,000--Augusta, Norfolk, Jacksonville, Dallas, Mobile, Pittsburgh, and St. Louis, in addition to the six mentioned above--and in all of these SMSAs, rates were low in 1970 too as summarized in Table 2, the number of SMSAs with low rates for females in 1970 and 1975 (N=42; 91%) remained constant, with slight but insignificant changes among the proportion of SMSAs with moderate and high rates of Black female suicide. The general trend is for the majority of SMSAs to record adult Black female rates of less than 10 per 100,000.

The difference in relative rates by sex among Blacks in our sample of SMSAs reflects trends indicating that suicide is more prevalent among males than females. Data in Table 1 indicate that the gap between the suicide rates of males and females has been widening among metropolitan Blacks. Since the beginning of the decade,the ratio of male to female suicide increased 18% in the South (from 3:1 to 4:1), 30% in the North Central region (from 3:1 to 4:1), and 46% in the Northeast (from 5:1 to 7:1). In the West, the ratio remained rela-

tively constant at 2:1, reflecting the narrowest margin between the sexes in the country.

In 1970, suicides were most democratically distributed between the sexes in Los Angeles, Charleston, Milwaukee, Dayton, Mobile, Shreveport, Jacksonville, Augusta, and Charlotte. Black males exceeded their female counterparts in suicide rate by ratios ranging from 11:1 to 20:1 in Greensboro, Louisville, Ft. Worth, New Orleans, and Paterson. By 1975, there were only three SMSAs (Richmond, Charlotte, and Shreveport) in which suicide was democratically distributed. The highest differentials were found in Charleston, Ft. Lauderdale, Dallas, Ft. Worth, Baton Rouge, Dayton, Pittsburgh, and Paterson. Clearly, a comparison of the SMSAs with the highest differentials over the six years indicates that the ratio is most unequal in Ft. Worth and Paterson, and that the gap is narrowest in Charlotte and Shreveport.

CHANGE BETWEEN 1970 and 1975

The interesting pattern of trends observed thus far can be further explored by focusing upon changes in metropolitan Black suicide between 1970 and 1975. The last column of Table 1 shows changes for each of the forty-six SMSAs between 1970 and 1975. In the metropolitan South, overall SMSA rates remained relatively constant; rates increased slightly among males and declined by 11.6% among females. Twenty-one (46%) of the metropolitan areas experienced increases in their total rates, in comparison with twenty-five (54%) that decreased. Although 1970 to 1975 changes were most pronounced in Columbia and Shreveport, the actual numbers involved are relatively small. The most significant changes occur in Washington, Nashville, and New Orleans, where there has been marked increases (by 65%, 66% and 47% respectively) in both rate and

percentage of suicide over the six years. Using similar logic, the 65% decline in Baton Rouge is more significant than the noticeable decreases in Charlotte and Augusta.

Among Southern Black males residing in metropolitan areas, large increases occurred in Charleston, Shreveport, Columbia, and Norfolk. However, increases in Washington, Birmingham, Nashville, and Ft. Lauderdale are of more substantive interest. For example, the suicide rate among adult Black males in the nation's capital rose from 14 to 25 per 100,000 between 1970 and 1975, an increase of 83%. Birmingham's rate increased by nearly 70%, and Black males experienced a 50% increase in Nashville and Ft. Lauderdale.

The suicide rate decreased by slightly more than half in Richmond and Greensboro. Decreases of 60% in Augusta and 64% in Baton Rouge were the largest observed. In both instances, relatively few cases of suicide were involved, but the decline in Baton Rouge is more meaningful given the size of its rates. Moderate decreases of approximately 40% occur in Louisville, Atlanta, and Miami.

Looking at changes among Black females in the metropolitan South, the problem of small numbers is again encountered when attempting to explain dramatic increases. Black females simply do not have a high incidence of suicide. The large increases in Greensboro and Columbia, are statistical artifacts resulting from the fact that no female suicides occurred among Blacks in these SMSAs in 1970. In four other SMSAs--Nashville, Louisville, Shreveport, and New Orleans--the number of Black female suicides is less than five in both time periods. For example, in 1970 there was only one recorded suicide among Black females in Nashville and Louisville. By 1975, the number increased to four in both SMSAs.

The most noticeable declines occur in Baton Rouge, Ft. Lauderdale, and Charleston. In each instance, the number of Black female suicides decreased from less than five to zero, registering decreases of 100%. Fairly large declines (50-90%) are recorded in Dallas, Mobile, Birmingham, Jacksonville, Augusta, and Charlotte; however the actual numbers involved are small in both 1970 and 1975. Although the Black female suicide rate decreased by 54% in the Washington D.C. metropolitan area, the actual number of suicides increased slightly (from 7 to 8) between 1970 and 1975. Increases in the Black female population over the six-year period account for this anomaly. Finally, during both periods no Black female suicides were recorded in the Ft. Worth metropolitan area.

Among Blacks residing in metropolitan areas of the North Central United States, suicide rates declined by 17% among the total adult Black population, by 30% among Black females, and 6% among Black males. Cincinnati and Detroit were the only SMSAs in which increases occurred for the total adult Black population, 124% (more than doubling, from 10 to 22 per 100,000) and 45% (11.6 to 16.8) respectively. The remaining metropolitan areas experienced declines ranging from a low of 3% in Chicago to a high of 66% in Columbus. Suicide rates declined by two-thirds in Columbus, slightly more than half in Gary, and by approximately half in Indianapolis. A decrease of 40% occurred in Kansas City.

The most dramatic changes among Black males occur in two of Ohio's largest metropolitan areas: The suicide rate increased 150% in Cincinnati, as noted previously, and decreased by three-quarters (31.5 to 8.6) in Columbus. The rate increased 62% in Detroit, and declined approximately 50% in Gary. More moderate declines, 36% and 38%, occurred in Kansas City and St. Louis.

Again, since Cincinnati is one of the metropolitan areas accounting for most of the increase in suicide among adult Blacks residing in the North Central region of the country, it is no surprise to find the Black female rate increased 88% there. However, determining the metropolitan areas in which the most significant declines occur is more problematic, since nine of the SMSAs in 1970, and seven in 1975, had Black female rates that were based on less than five cases of suicide, and of the nine in 1970, six had declines of 40% or more in their rates by 1975. Dayton, for example, which had no Black female suicides in 1975, and only three cases in 1970, experienced a decrease of 100%. Clearly a comparison of the SMSAs with noticeable decreases in their female rates reveals that none of the metropolitan areas experienced significant declines in their rates other than possibly Dayton.

In the metropolitan Northeast, the pattern of change observed in the adult Black suicide rate is one of an increasing trend, though rates declined slightly among females. The exploration of changes by region over the six-year span indicates that adult Black males experienced the sharpest rises in their rates in the Northeast (38%; 19 to 26 per 100,000) and that the decrease in the Black female rates is the smallest among all regions (5%, 3.8 to 3.5 per 100,000). Overall, rates increased nearly 50% among adult Blacks (9 to 13 per 100,000) between 1970 and 1975.

The most dramatic increases occur in Buffalo, where the adult Black rate rose from 4.7 to 15.5 per 100,000, an increase of 230% (376% for males and 70% for females). However, although the increases in the Buffalo SMSA are worthy of attention, the actual numbers involved do not warrant the public concern implied by the magnitude of the change measures. The New York metropolitan area recorded an increase of nearly 100% in the rate of Black female suicide (from

less than 2 per 1000,000 in 1970 to 3.3 in 1975), 37% for Black males (from 10 to 13), and 44% total (5 to 7.5). In addition, Boston, and Philadelphia experienced moderate increases in both their total (43% and 48%) and male (49% and 73%) rates. The Black male rate in Newark increased 58% (from 11 to 18); whereas the rates declined for Black females in both Newark (35%; 5.4 to 3.5), and Pittsburgh (72%; 5.3 to 1.5). As noted previously, no suicides occurred among Black females in either 1970 or 1975 in Ft. Worth or Paterson.

As in the North Central region, suicide rates in the West declined; however, the declines are generally sharpest among SMSAs located in the North Central United States. In the West, the suicide rate declined 13% for both the total adult Black population and for males: The total rate decreased from 17.5 to 15 and the male rate from 24 to 21. A drop of 22%, occurred among Black females, from 13 to 10. Los Angeles recorded an overall rate decrease of 28% whereas the San Francisco rate decreased by only 6%. However, declines in male rates are fairly similar in both metropolitan areas (15% in Los Angeles and 11% in San Francisco). Although the rate for Black females in San Francisco increased 15%, it decreased by 46% in Los Angeles.

TRENDS BY SIZE, AGE, AND REGION OF SMSA

In an attempt to specify more accurately the differences between 1970 and 1975 suicide patterns, Table 3 presents trends by population size, age of SMSA, and region. The data show an overall tendency for average suicide rates to rise as population size increases (rates range from 6.5 to 11.8 in 1970 and from 6.0 to 13.0 in 1975), with one exception. Looking at changes over the six years, however, the pattern differs substantially from that observed at each period. The data indicate that decreases in suicide rates took place only among middle-sized SMSAs; noticeable increases occurred among the largest SMSAs,

Table 3

Average Black Suicide Rates for 46 SMSAs, by Population Size, SMSA Age, and Region 1970 and 1975

	Number of SMSAs	Average Rate 1970	Average Rate 1975	Change (in percentages)
SMSA Population Size				
250,000 - 499,999	8	6.5	6.0	- 7.7 %
500,000 - 999,999	13	11.2	9.4	-16.1
1,000,000 - 2,999,999	19	10.2	10.7	4.9
3,000,000 or more	6	11.8	13.0	10.2
SMSA Age				
1860 or before	15	9.6	12.1	26.0
1870 - 1880	9	13.8	10.4	-24.6
1890 - 1900	4	11.4	12.0	5.3
1910 - 1920	10	8.1	7.0	-13.6
1930 - 1960	8	7.9	7.4	- 6.3
South	26	8.7	8.9	2.3
Non-South	20	11.1	12.8	15.3

especially among those with three million or more inhabitants.

No consistent trend is revealed when looking at variations in average rates by age of SMSA. The highest rates in 1970 were recorded among SMSAs created between 1870 and 1900, and in 1975 among those SMSAs going back to before 1860 up to 1900. The change in rates was mixed, with the greatest increase occurring among the oldest SMSAs, and consistent decreases among SMSAs created since 1900. However, the greatest decline in average rate took place in SMSAs that developed between 1870 and 1880.

Finally, when the forty-six metropolitan centers are divided into a South/non-South regional distinction, it becomes clear that the Black suicide rate is increasing in both regions. As noted earlier, the increase is small in the South, with the rate remaining around 9 per 100,000 in both 1970 and 1975. In the non-South the rise is more noticeable (15%), with the rate increasing from 11 per 100,000 at the begining of the decade to 13 by the mid seventies. When the Northeast, North Central, and West are combined the large increase of the Northeast overshadows the smaller declines in the West and North Central regions reported earlier.

DISCUSSION AND CONCLUSIONS

The foregoing analysis of the characteristics and trends of metropolitan adult Black suicide during the first half of this decade indicates an interesting mixture of observed patterns. Death rates from suicides per 100,000 adult Black population residing in approximately fifty metropolitan areas reveal that 1) the gap between the suicide rates of males and females has been widening in every region of the country except the West; 2) rates are rising most dramatically in the metropolitan Northeast, whereas the sharpest declines occur among

SMSAs in the North Central United States; 3) rates continue to be highest among large industrial centers of the North and West, although urban centers of the South are represented in the top ten (however, they also predominate the bottom ten; 4) rates declined among metropolitan Black females in every region of the country; among Black males, rates declined in the West and North Central regions and increased in the South and Northeast.

In general, male rates are higher than female rates, with the difference varying from one metropolitan area to another. However, the sex ratio remained practically constant in the West. The highest sex differentials are found in Ft. Worth, Texas and Paterson, New Jersey, where no Black female deaths from suicide occurred. Since the beginning of the decade, the ratio of male to female suicide increased by nearly one-fifth in the South, almost a third in the North Central region, and approximately half in the metropolitan Northeast.

The existence of Black male suicide rates that are consistently higher than those for Black females suggests that external circumstances are influencing one sex more than the other. Is it possible that Black females have a greater resistance to suicide because of their more active participation and involvement in the traditional institutional structures, groups, and relationships within the Black community (i.e., church, PTA, fraternal organizations)? This differential involvement may expose Black females to community support systems that provide participation and purpose, a sense of belonging, and the possibility of cooperative and self-help approaches to stressful situations that might otherwise lead to suicide. This possibility contains the implicit assumption that when and where Black females and males have equal exposure to community support systems the male rate will start to approximate that of females.

The second most important and relatively consistent pattern found in the examination of metropolitan Black suicide rates is that associated with changes in direction and magnitude. Larger urban industrial centers of the North experienced the most dramatic changes, with three Northeastern metropolises--Buffalo, Philadelphia, and Newark--and two North Central metropolises--Cincinnati and Detroit--reporting the most noticeable increases in suicide rates among metropolitan Blacks. But overall, the most consistent pattern of increasing rates is found among metropolitan centers of the Northeast, (Buffalo for males and New York for females) and the sharpest pattern of decline among metropolises in the North Central United States (Columbus for males and Dayton for females). It is clear from these findings that the states of New York and Ohio experienced the most interesting changes in rates.

Students of suicide have long been aware of the observation that the Black suicide rate in the Northeastern region of the nation was relatively high, especially among the metropolitan population of New York state. There was some indication in the early years of this century that the number of Black suicides in the Northeastern region approximated that of whites (Vital Statistics of the U.S., 1956). Social scientists and mental health practitioners point to migration, stresses of urban life, racist institutions, and movement into the American mainstream as factors which might begin to explain this observation. However, it is difficult to provide an explanation of the possible etiological agents that might begin to account for the decreasing trend in the suicide rate of metropolitan Black adults in the North Central region of the country. Declines in the rates of suicide may result from the presence of lower concentrations of etiological agents in 1975 or the degree of exposure of Blacks to various causative agents may have been altered by environmental conditions by the mid-seventies.

Further exploration of trends in metropolitan Black suicide reveals that rates were consistently among the top ten in Cincinnati, Cleveland, Los Angeles, San Francisco, Louisville, Tampa, Nashville, and Pittsburgh, and that Mobile, Augusta, Jackson, Norfolk, and Greensboro (all Southern) were the only SMSAs to appear in the botton ten with regularity. It is interesting that three Southern metropolitan centers appear as areas of high risk for Blacks, since the South is an area characterized by the lowest adult Black suicide rates. Of equal interest is the paucity of Northeastern metropolitan centers among the leading centers of Black suicide. Given that rates are increasing most noticeably in the Northeast, one would expect greater representation among the top ten.

The presence of Southern metropolitan centers among the leading centers of Black suicide is best explained by theories of convergence and the thesis of industrialism (Featherman and Hauser, 1979). Since World War II the industrial and occupational compositions of the American North and South have become more similar (McKinney and Bourque, 1971). Economic expansion in the form of shifts in industrial and occupational structures, together with other demographic and social changes in the South over the last decade create the possibility of Southern Blacks being exposed to suicide forces previously affecting Northern Blacks. If the social structures--the economy and the associated systems of status allocation--of two societies tend to converge owing to common technical and organizational requirements, it would not be unreasonable to expect regional variation in mortality from suicide to begin to disappear.

Without underestimating the preceding scenario, the fact that fewer Blacks in the South than in the North commit suicide requires further explanation. Social scientists have in the past sought answers to this empirical reality by pointing to urbanization and poverty as explanatory variables (Dublin, 1963;

Cavan, 1928; Schmid, 1938). There was some indication in the fifties that urbanization was a factor in accounting for the higher rates of suicide in metropolitan areas of the North. However, recent research indicates that "it is no longer correct to assume that there is an inherent relationship between urban living and high suicide rates" (Linden and Breed, 1976:90). Nor can the assumption be made that Southern Blacks are primarily rural, since 67% of the Black Southern population is urbanized (U.S. Bureau of the Census, 1972). If poverty per se is an etiological factor, then one would expect to find metropolitan centers of the North, with their ghettos and relatively high levels of poverty, included among the bottom ten suicide centers. The data do not support this view.

The low suicide rate of Southern Blacks is probably due to the greater dispersion of the Black population in the South (see notes 1 and 4), which facilitated the development of multiple institutional structures and community support systems, from the local PTA to the Urban League. Southern Blacks in effect have had more opportunities for self expression and status recognition. Participation in political, religious, and civil rights organizations as well as fraternities, lodges, and the thousands of short-lived clubs and peer relations provides Blacks with a sense of prestige, and a place to exercise power and control and win applause and acclaim. The important point is that these community structures function to provide compensation for rejection, abuse, and the stresses and anxieties associated with suicide and depression. However, with increasing industrialization and economic expansion in the South, upward mobility--from working class to middle class or from unskilled and semiskilled occupations to white collar and professional technical occupations--and subsequent isolation from community support systems will foster higher rates of mortality from suicide among Southern Blacks. In addition, less fortunate Blacks who view their Southern peers'

success as an indicator of their self worth (i.e., if they made it, I can make it) and internalize their failure and frustration will become isolated from their families, communities, and social institutions, increasing the likelihood of suicide.

Thus, this explanation contains the implicit assumption that when and where access to support systems is limited, the Southern Black suicide rate will begin to rise, approximating that of Blacks in the rest of the nation. Presently, as we have seen, the metropolitan Black suicide rate has been fairly constant in the South (about 9 per 100,000), with a slight increase among Black males. In the three Southern metropolitan centers that registered high adult Black suicide rates--Tampa, Louisville, and Nashville--Black males have remarkably high rates at both time periods. In addition, rates increased significantly among Southern Blacks (particularly males) in Washington D.C., Birmingham, and New Orleans, with less dramatic increases in Baltimore and Houston. Hence, one might infer that these eight metropolitan centers represent the avant-garde in terms of increasing suicide rates among Southern metropolitan areas.

Finally, it seems reasonable to conclude that suicide within the Black community, as among whites, is primarily a male problem. Young adult Black males in some of the nation's largest and most populated metropolitan centers are taking their lives at an alarming rate. Although the trends discerned in the present analysis are not necessarily durable and permanent, they indicate that students of suicide, mental health practitioners, and social commentators should direct their energies toward understanding the dynamics of what has become the third leading cause of death among young adult Black males.

NOTES

[1]In 1970, 89% of the Black population lived in the metropolitan centers of the North Central region, compared to 55% of the white population. In the Northeast, the Black population was even more concentrated in metropolitan centers, with 93% residing in SMSAs compared to 72% of the white population. Only in the South was the proportion of Blacks in SMSAs less than 50%; however this is due to the greater dispersion of Blacks in nonmetropolitan cities rather than to rural residence, since 67% of the Black southern population is urbanized.

[2]With few exceptions, these are also the metropolitan centers with total population in excess of one million: South--Washington, D.C., Baltimore, Miami, Tampa, Atlanta, Dallas, New Orleans, Houston, Ft. Worth, Norfolk, Ft. Lauderdale, Memphis, Birmingham, Richmond, and Greensboro; North Central--Chicago, Detroit, St. Louis, Cleveland, Cincinnati, Kansas City, Indianapolis, Gary, Milwaukee, and Columbus; Northeast--New York City, Philadelphia, Newark, Boston, Pittsburgh, and Buffalo; West--Los Angeles and San Francisco.

[3]Seattle, Tacoma, Portland, and San Diego have sizable Black populations, but the number of Black deaths due to suicide is far too small in both 1970 and 1975 to warrant their inclusion.

[4]Los Angeles, New York City, and Chicago lead all other SMSAs by healthy margins, with 49%, 47%, and 30% respectively of the Black metropolitan population of their respective region; next in line are Philadelphia and San Francisco, each with 21% of the metropolitan Black population in their region, followed closely by Detroit, with 19%; St. Louis, with 9% and Cleveland and Newark, with 8% each

of the Black metropolitan population in their region complete the picture. In none of the Southern metropolitan centers is there a concentration of the Black population equal to that of the largest SMSAs in the North and West. It is, in fact, a border metropolitan center, Washington D.C., which leads Southern metropolitan centers in proportion of Black population, with 11%. These data were calculated from the U.S. Bureau of the Census (1972, Tables P-3, and P-6, 1973, Table 294, pp. 1-1266 to 1-1279).

[5]Data in this analysis refer to Blacks only.

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